

What is claimed is:

1. A method of detecting orientation of an optical disk drive, comprising the steps of:

driving a first force on a movable optical pick up head of the optical disk drive for a preset period;

measuring a first moving distance of the movable optical pick up head;

driving a second force on the movable optical pick up head for the time period, wherein the second force and the first force have opposite direction but same amplitude;

measuring a second moving distance of the optical unit; and

determining the difference between the first and second moving distances;

determining the optical disk drive as horizontal orientation when the difference falls within a pre-determined value.

2. The method of claim 1, further comprising determining a inclined angle and an compensating gain signal of the optical disk drive according to the difference when the difference exceeds the pre-determined value.

3. The method of claim 1, wherein the amplitude of the first force and the second force are time varied forces.

4. The method of claim 1, wherein the first force is directed away from a spindle motor of the optical disk drive.

5. The method of claim 1, wherein the second force is directed toward a spindle motor of the optical disk drive.

6. The method of claim 1, wherein the first and the second distances are measured by a photo interrupter or a Hall sensor.

7. The method of claim 1, wherein the first force and the second force have a fixed magnitude.

8. A method of detecting orientation of an optical disk drive, comprising the steps of:

driving a first force on a movable optical pick up head of the optical disk drive for a pre-determined distance;

measuring a first moving time of the movable optical pick up head;

driving a second force on the movable optical pick up head for the pre-determined distance, wherein the second force and the first force have the same amplitude but opposite direction;

measuring a second moving time of the movable optical pick up head;

determining the difference between the first and second moving time;

determining the optical disk drive as horizontal orientation when the difference falls within a pre-determined value.

9. The method of claim 8, further comprising determining a inclined angle and a compensating gain of the optical disk drive according to the difference between the first and second moving times.

10. The method of claim 8, wherein the amplitude of the first force and the second force are time varied forces.

11. The method of claim 8, wherein the first force is directed away from a spindle motor of the optical disk drive.

12. The method of claim 8, wherein the second force is directed toward a spindle motor of the optical disk drive.

13. The method of claim 1, wherein the first force and the second force have a fixed magnitude.